

FEDERALLY ENFORCEABLE DISTRICT-ORIGIN OPERATING PERMIT–TYPE II APPLICATION



***Air Pollution Control District of
Jefferson County, Kentucky***

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REQUIRED COMPONENTS OF A FEDERALLY ENFORCEABLE DISTRICT-ORIGIN OPERATING PERMIT (FEDOOP) TYPE II APPLICATION

Jefferson County Air Pollution Control District

This permit application is composed of eighteen forms, labeled 9440-A to 9440-R. These forms must be completed in their entirety for this application to be deemed complete.

1. Form 9440-A: **Administrative Information:** This form will provide the necessary source information and must be signed by a responsible official.
2. Form 9440-B1 through Form 9440-B4: **Emissions Unit Information:** This form should be used for each emission unit, and for each alternative operating scenario. Multiples of this form may be necessary for each emission unit.
3. Form 9440-C1 through 9440-C7 and 9440-C10: **Control Devices:** Complete the appropriate form for each control device. *Forms 9440-C8 & 9440-C9: **Non-Controlled Emissions and Fugitive Emissions:** These forms were deleted from the Type II application April 11, 1995.*
4. *Form 9440-D: Alternative Operating Scenarios: No form needed for Type II.*
5. Form 9440-E: **Emissions Data:** This form should be used to list emission rates of all regulated air pollutants for each emission unit and for all operating scenarios associated with an emission unit.
6. *Form 9440-F: Stack Height Determination Information:*
7. Form 9440-G: **Emissions Calculations:** Supporting calculations must be supplied on this form for all emissions data submitted with this permit application.
8. Form 9440-H: **Emissions Summary:** This form shall be used to summarize plantwide emissions for all regulated air pollutants.
9. Form 9440-I: **Applicable Requirements:** Applicable federal and/or District regulations governing emission standards and limitations, recordkeeping, reporting, monitoring, and testing must be stated.
10. *Form 9440-J: Insignificant Activities Summary: No form needed for Type II.*
11. Form 9440-K: **Compliance Monitoring Devices and Activities:** Complete one form for each applicable emission unit.
- 12-14. *Form 9440-L: Compliance Status, Form 9440-M: Compliance Schedule, and Form 9440-N: Certified Progress Report: No form needed for Type II.*
15. Form 9440-O: **Compliance Certification:** This form must be submitted with the original application and with each annual report. It must be signed by a responsible official.
16. Form 9440-P: **Section 112(r) Risk Management Plan:** This form must be submitted with the initial permit application.
- 17-18. *Form 9440-Q: Emission Reduction Credit and Form 9440-R: Episode Standby Plan: No form needed for Type II.*

INSTRUCTIONS FOR FORM 9440-A

ADMINISTRATIVE INFORMATION

Type of Application

Check the appropriate box(es).

LEGEND:

INI	Initial Application	REL	Relocation
REP	Replacement	CPC	Change of Permit Condition
OWN	Change of Ownership	REV	Permit Revision

Initial Application (INI) – Application is submitted pursuant to receiving written notification from the District that the **FEDERALLY ENFORCEABLE DISTRICT-ORIGIN** permit program has been approved by the EPA and that the source must submit an application to revise its existing operating permit to conform to the **FEDERALLY ENFORCEABLE DISTRICT-ORIGIN** requirements.

Replacement (REP) - The replacement of existing permitted equipment with equipment of the same size, type, and function that does not result in an increase in emissions of regulated air pollutants, and that does not affect the compliance status.

Change of Ownership (OWN) - Self-explanatory.

Relocation (REL) - Notification to the District that an emission unit will be moved from one physical location to another within a source with no resultant changes to the process or to emission rates. Additional information will be required if the relocation of an emission unit in any way influences a previous modeling compliance demonstration performed for the relocated emission unit or for any part of the source to which the emission unit is being relocated.

Permit Revision (REV) - Permit revisions are defined in Section 6 of District Regulation 2.17 and should be reviewed by the applicant prior to preparing an application.

Change of Permit Condition (CPC) - Request for change of a permit condition which cannot be classified in any of the categories above.

ADMINISTRATIVE INFORMATION (cont.)

Source Information

- 1) Enter the full business name of plant (the name to which the permit will be issued).
- 2) Street address at which the source is located.
- 3) - 6) Complete with appropriate information. Note: The SIC Code is the Standard Industrial Classification which can be found in the Standard Industrial Classification Manual. If there are multiple processes at the source which have different SIC codes, list the code or codes which best represent the primary activity at the source. A copy of the SIC codes is available for reference at the District office.
- 7) - 8) Person at the plant who may be contacted for questions about the permit application.

Owner Information

- 9) Can be an individual or the parent company.
- 10) This is the mailing address of the parent company.
- 11) - 13) Complete with the appropriate information.
- 14) Individual who is authorized to act on behalf of the owner.

Operator Information

- 15) - 19) Complete this section if the operator is not the owner of the plant.

Applicant Information

- 20) - 21) Check the appropriate boxes.
- 22) Name and title of person to whom written correspondence should be addressed.
- 23) - 24) Enter the name of the person designated to answer technical questions.

Supporting Documents

- 25) Check pertinent items.

Corporate/Company Ownership

- 26) List any and all persons and organizations which have a five percent (5%) or more interest in the company.

Signature Block

- 27) The application must be signed by a responsible official of the source and dated. In general, a responsible official is as follows:
For a corporation:
 - Corporate officer
 - Other person in charge of a principal business function
 - Duly authorized representative responsible for overall operation of a source (plant manager) if either:
 - 250 persons employed or \$25 million in sales or expenditures
 - Delegation of authority approved in advanceFor a partnership: A general partner.
For a sole proprietorship: The proprietor
For a government agency:
 - Principal executive officer
 - Ranking elected official

FEDERALLY ENFORCEABLE DISTRICT-ORIGIN OPERATING PERMIT APPLICATION

Jefferson County Air Pollution Control District
850 Barret Avenue, Suite 205, Louisville, Kentucky 40204-1755
ADMINISTRATIVE INFORMATION FORM 9440-A

The completion of this form is required under District Regulation 2.17. Applications are incomplete unless accompanied by copies of all plans, specifications, and drawings requested herein. Failure to supply information required or deemed necessary by the District to enable it to act upon the application shall result in denial of the permit and ensuing administrative or legal action.

TYPE OF APPLICATION:		
<input type="checkbox"/> INI	<input type="checkbox"/> OWN	<input type="checkbox"/> CPC
<input type="checkbox"/> REP	<input type="checkbox"/> REL	<input type="checkbox"/> REV

FOR DISTRICT USE ONLY	
EIS NO.:	PERMIT NO.:
DATE RECEIVED:	/ /
DETERMINATION DATE:	/ /

SOURCE INFORMATION		
1) Source (Facility) Name:		
2) Source Street Address:		
3) City:	4) ZIP + 4:	
2a) Source Mailing Address:	4a) ZIP + 4:	
5) Primary Standard Industrial Classification (SIC) Description:	6) Primary 2-digit SIC No.:	
	6a) OR Primary NAICS No.:	
7) Source's Environmental Contact Person:	8) Contact Person's Telephone No.: () -	
	8a) Contact Person's E-Mail Address:	
OWNER INFORMATION		
9) Name:		
10) Address:		
11) City:	12) State:	13) ZIP + 4:
14) Owner's Agent (if applicable):		
OPERATOR INFORMATION		
15) Name:		
16) Address:		
17) City:	18) State:	19) ZIP + 4:
APPLICANT INFORMATION		
20) Who is the applicant? <input type="checkbox"/> Owner <input type="checkbox"/> Operator	21) All correspondence to (check one): <input type="checkbox"/> Owner <input type="checkbox"/> Operator <input type="checkbox"/> Source	
22) Attention name and title for written correspondence:		
23) Technical contact for submittal of application:	24) Contact Person's Telephone No.: () -	
	24a) Contact Person's E-Mail Address:	

ADMINISTRATIVE INFORMATION FORM (cont.)

25) Check other attachments which are part of this application:

☐ Material Safety Data Sheets (MSDS)

☐ Stack Test Reports

☐ Claim of Confidentiality

☐ Other (Specify): _____

SIGNATURE BLOCK FOR RESPONSIBLE OFFICIAL

27) Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete.

BY:

Authorized Signature

_____/_____/_____
Date

Typed or Printed Name of Signatory

Title of Signatory

Representing:

☐ Owner

☐ Operator

INSTRUCTIONS FOR FORM 9440-B

EMISSION UNIT

Definitions:

EMISSION UNIT – A "part" or "activity" within a source which has one or more emission points. An emission unit may have one or more pieces of equipment which are related by their production purpose. The emission unit is sometimes referred to as an "affected facility" or "process" in the District Regulations. An emission unit may be any of the following:

- An emitting point that can be individually controlled: e.g., a boiler or a paint booth.
- The smallest grouping of emission points that, when collected together, can be commonly controlled by a single control device or work practice.
- Any grouping of emission points that, when collected together, can be commonly controlled by a single control device or work practice.
- A grouping of emission points that are functionally related.

Equipment is functionally related if the operation or action for which the equipment was designed could not occur without being connected to, or without relying on the operation of, another piece of equipment.

EMISSION UNIT ID # – This is the unique ID number which the company has assigned to an emission unit. This number shall be with the capital letter "U" followed by a number. The numbers shall start with "1" and shall be assigned consecutively throughout the plant, using steps of 1.

EMISSION POINT – A part of an emissions unit for which there is an emission standard and emits, or has the potential to emit, regulated air pollutants. For example, an emission point may be a boiler, a reactor vessel, a storage tank, or a printing press.

EMISSION POINT ID # – This is the unique ID number which the company has assigned to an emission point. This number shall be prefixed with the capital letter "E" followed by a number. Number the emission points consecutively, starting with the number "1", using steps of 1. This number must be unique for each point. Do not start over with E1 when starting to list a new emissions unit.

FUGITIVE EMISSIONS – Fugitive Emissions are emissions of regulated air pollutants associated with an emission point, but are not captured and exhausted through a stack or vent. Fugitive Emissions can be quantified either by determining the amount of uncaptured emissions at a point of capture, by mass balance, or by emission factors. Fugitive emissions shall be accounted for as an assigned emission point with an associated emission point ID number.

INSTRUCTIONS FOR FORM 9440-B1 EMISSION UNIT

EMISSION UNIT NAME – Enter the company designated name for the Emission Unit, such as Boiler #6, or Flaker Line 2. This name must be entered exactly the same way each time it is referenced in the permit application.

Example - Boiler #6 must not be referred to later as Process Boiler 6.

EMISSION UNIT # – This is the unique number which the company has assigned to an Emissions Unit. This number shall be prefixed with the capital letter "U" followed by a number. The numbers shall start with "1" and shall be assigned consecutively throughout the plant, using steps of 1.

Example - U1, U2, . . . U53, not U2.5.

EIS # – This number is assigned to the company by the District. If you do not know your EIS number, contact the District.

EMISSION UNIT DESCRIPTION – Provide a short description to describe this Unit.

Example - "spent grain dryer" or "casing and cutting line" or "Pb-Acid Battery Mfg - Grid Casting Line."

SIC CODE – Enter the four-digit SIC Code for this Emission Unit.

CONTINUOUS / BATCH – Enter the appropriate designation for this Emission Unit.

A **continuous process** has a continual flow of material entering and exiting the process. Usually, continuous transfer, conveyORIZED, or station-to-station assembly line type operations are considered continuous processes.

In a **batch operation**, the materials enter the process at one time. There is usually a holding time required to allow extensive mixing or to allow a chemical reaction to occur.

OPERATING SCHEDULE

Normal Enter the actual hours/day, days/week, weeks/year that this Emission Unit is expected to be in operation.

Maximum Enter the schedule that reflects the maximum time you propose to operate this Emission Unit. Keep in mind that the Emission Unit will have permit conditions limiting its operation to whatever amount is listed here.

Example - If normally the schedule is 8 x 5 x 52, but in the Summer the process is run on 4 hours of overtime a day and one shift on Saturday, then in this section you would enter:

<i>Monday - Friday</i>	<i>12 hrs/day, 5 days/wk, 12 wks/yr</i>
<i>Sat. - Sun.</i>	<i>8 hrs/day, 1 day /wk, 12 wks/yr</i>

SEASONAL VARIATION

Enter the percent of the total annual throughput for this Emission Unit for each quarter.

Example - If the Unit only operated during June, then the Apr. - Jun. block would have 100%.

Example - If 80% of the throughput is in April - Sept., then enter:

Jan. - Mar. 10% Apr. - Jun. 40% Jul. - Sep. 40% Oct. - Dec. 10%

RAW MATERIALS, Type and Units

Type: Identify each material or product going into the process. Exclude the combustion of fuels. Be as specific as possible without going into the constituent level for compounds.

Example - tobacco, lead oxide, sand, asphalt, paints, diluents, formaldehyde.

Units: Enter the units by which each material is measured into the process. If any unit other than weight is used, please indicate in this section how to convert the unit to weight.

Example - lbs., tons, square feet, cubic feet, gallons.

EMISSION UNIT (cont.)

PRODUCTS, Type and Units

Type: Identify each type of product which is produced by this emissions unit.

Example - painted wooden doorknobs, wooden cabinet panels - cut to length, extruded vinyl strips, steam, crushed rock, printed cardboard boxes, phenolic resins.

Units: Enter the units by which each product is measured.

Example - gallons, feet, lbs.

PROCESS DESCRIPTION

Describe what is taking place at the Emission Unit.

Example - Tobacco is conveyed to a conditioning drum where moisture is added. There are hoods to collect dust from the conveyor and dust pickup points at the entrance to the conditioning drum.

FUELS

Emission Point #: If there is fuel consumed as part of this Emission Unit, enter the Emission Point I.D. # associated with this fuel use.

Type: Enter the type of both primary and backup fuel for each Emission Point.

BTU/unit: Enter the heating value of the fuel in BTU per unit of measurement. *Example: 140,000 BTU per gallon.*

Normal Usage: Enter the actual usage per year of this fuel under normal operating conditions.

Maximum Usage: Enter the maximum usage per year of this fuel that you propose to burn in a year. There will be permit limits restricting fuel usage to this amount, and requirements to record and report the amounts to verify that no limits are exceeded.

Sulfur %: Enter the percent Sulfur of the fuel.

Ash %: Enter the percent ash of the fuel.

EMISSION UNIT

Emission Unit ID#

Emission Unit Description:				
SIC Code:		Continuous / Batch:		
OPERATING SCHEDULE		Hours/Day	Days/Week	Weeks/Year
Normal (Monday - Friday)				
(Sat. and Sun.)				
Maximum (Monday - Friday)				
(Sat. and Sun.)				
SEASONAL VARIATION (%)		Jan. - Mar.	Apr. - Jun.	
		Jul. - Sep.	Oct. - Dec.	
RAW MATERIALS, Type and Units				
PRODUCTS, Type and Units				
PROCESS DESCRIPTION				
FUEL		EMISSION PT #		EMISSION PT#
		PRIMARY	SECONDARY	PRIMARY SECONDARY
Type				
BTU/Unit				
Norm. Usage				
Max. Usage				
Sulfur %				
Ash %				

FOR FORM 9440-B2 EMISSION UNIT

EMISSION UNIT NAME, EMISSION UNIT ID #, EIS

Enter these exactly as they were assigned in Form 9440-B1.

EMISSION POINT ID

This is the unique ID number which the company has assigned to an emission point. A point may be an area or point of fugitive emission, i.e. coal stock piles, haul roads, aboveground storage vessels, etc. This number shall be prefixed with the capital letter "E" followed by a number. Number the emission points consecutively, starting with the number "1", using steps of 1. **This number must be unique for each point. Do not start over with E1 when starting to list a new Emission Unit.**
Example - Emission Unit Number U30 contains the Emission Points E1, E2 and E3, and Emission Unit Number U31 has Emission Point Numbers E4 and E5.

EMISSION POINT DESCRIPTION

Describe the point, including a company designated ID for the point.
Example - Stainless steel reactor vessel (R105), Scalper screens (screen one), Spray paint booth (Booth 3), printing press (Old Heady), grinder, extruder.

MAKE

Enter the make of the equipment. If the equipment was built in-house, enter that. If the Emission Point is not associated with a piece of equipment, i.e., clean-up room where chemicals are used to wipe off screens or parts, then leave Make and Model blank.

MODEL

Enter the Model number of the equipment, if applicable.

MAXIMUM RATED CAPACITY

Enter the manufacturer's maximum rated capacity for the equipment per hour.
Example - A paint spray gun may have 3 gallons/hour, a press may have 1500 sheets/hour, a boiler may have maximum input capacity of 38 MM Btu/Hr.

INSTALLATION DATE

Enter the date the equipment was installed.

CONTROL ID

This is the unique ID number which the company has assigned to each control device. This number shall be prefixed with the capital letter "C" followed by a number. Number the control devices consecutively, starting with the number "1", using steps of 1.
Example - C1, C2, . . . C23.

If this emissions unit vents to a control device, enter the Control I.D. number which has been assigned to the device. If the control used is a series of devices, such as a cyclone that vents to a baghouse, then enter all appropriate ID numbers in the order that the gas stream enters them. Not all emission points will have a control; enter "NA" if the emission point does not employ a control device.

STACK ID

This is the unique ID number which the company has assigned to each stack. This number shall be prefixed with the capital letter "S" followed by a number. Number the stacks consecutively, starting with the number "1", using steps of 1.
Example - S1, S2, ... S23.

If this emissions unit vents to a stack, whether or not there is an associated control device, then enter the stack ID number. **If there is no stack, enter "F" for fugitive emissions.**

EMISSION UNIT

EIS # _____

Emission Unit ID # _____

Emission Unit Name _____

EMISSION PT #	EMISSION POINT DESCRIPTION	MAKE	MODEL	MAX. RATED CAPACITY	INSTALL DATE	CONTROL ID	STACK ID

INSTRUCTIONS FOR FORM 9440-B3 EMISSION UNIT/RAW MATERIAL USAGE

EMISSION UNIT NAME, EMISSION UNIT ID #, EIS

Enter these exactly as they are assigned in Form 9440-B1.

RAW MATERIAL NAME

Enter the name of the raw material.

Example - Red enamel paint, Xylene, 3/8 Crushed stone.

PRODUCT NUMBER

The product number is the number to the left of the product name on Form 9440-B4. Enter all product numbers which are associated with each raw material.

Example - Raw Material Product No.
Red Paint -----1/2/5
Xylene -----1/2/3/4/5
Green Paint -----2

Example - Raw Material Product No.
Crushed Rock -----1
Cement -----1
Sand -----1

CONTINUOUS

Actual, Units/Hour: Enter the actual amount of each material going into the process, per hour, during normal operation.

Maximum, Units/Hour: Enter the maximum amount of each material that you propose to introduce into the process, per hour, keeping in mind that the operation will be limited to these amounts and all potential emissions will be based on these amounts.

Actual, Units/Year: Enter the actual amount of this material used in a year.

Maximum, Units/Year: Use the following formula - Maximum Units/Hour x Maximum Hours/Day x Maximum Days/Year. Keep in mind that the operation will be limited by permit condition to these amounts and recordkeeping and reporting requirements may be required.

BATCH

Actual, Units/Batch: Enter the actual amount of each material introduced to the process for each batch during normal operation.

Actual, Hours/Batch: Enter the actual number of hours (one half hour would be entered as 0.5 hr) to process one batch under normal operating conditions.

Actual, Batches/Year: Enter the actual number of batches processed in a year.

Actual, Units/Year: Enter the actual amount of this material used in a year.

Maximum, Units/Batch: Enter the maximum amount of material that you propose to introduce to the process, per batch.

Maximum, Hours/Batch: Enter the maximum number of hours to process one batch.

Maximum, Batches/Year: Enter the maximum number of batches that would be expected to be processed in a year.

Maximum, Units/Year: Enter the maximum amount of material which may be introduced to this process in a year, using the maximum Units/Batch and the maximum number of Batches/Year. Keep in mind that the operation will be limited by permit condition to these amounts and recordkeeping and reporting may be required.

EMISSION UNIT / RAW MATERIAL USAGE

Emission Unit Name _____ Emission Unit ID _____ EIS # _____

		CONTINUOUS		BATCH			PRODUCT NUMBER(S)
		UNITS/HR	UNITS/HR	UNITS/BATCH	HR/BATCH	BATCHES/YR	
(1)	RAW MATERIAL NAME						
	Actual						
	Maximum						
(2)	RAW MATERIAL NAME						
	Actual						
	Maximum						
(3)	RAW MATERIAL NAME						
	Actual						
	Maximum						
(4)	RAW MATERIAL NAME						
	Actual						
	Maximum						
(5)	RAW MATERIAL NAME						
	Actual						
	Maximum						
(6)	RAW MATERIAL NAME						
	Actual						
	Maximum						
(7)	RAW MATERIAL NAME						
	Actual						
	Maximum						
(8)	RAW MATERIAL NAME						
	Actual						
	Maximum						
(9)	RAW MATERIAL NAME						
	Actual						
	Maximum						
(10)	RAW MATERIAL NAME						
	Actual						
	Maximum						

INSTRUCTIONS FOR FORM 9440-B4 EMISSION UNIT/PRODUCTION RATE

EMISSION UNIT NAME, EMISSION UNIT ID #, EIS

Enter these exactly as they are assigned in Form 9440-B1.

PRODUCT NAME

Enter the name of the product. For example - Painted wooden doorchimes, painted wooden wall sconces, phenolic resin.

MATERIAL NUMBER

The material number is the number to the left of the raw material name on Form 9440 - B3. Enter all material numbers which are associated with each product in the Emissions Unit.

Example - Product Name Material No.
Wooden chimes 1/2/3

CONTINUOUS

Actual, Units/Hour: Enter the actual number of units for each product per hour produced by this process per hour during normal operation.

Maximum, Units/Hour: Enter the number of product-units which may be produced by the process per hour under maximum operating conditions.

Actual, Units/Year: Enter the actual number of product-units which are produced by this process in a year.

Maximum, Units/Year: Enter the maximum number of product-units which may be produced by this process under maximum operating conditions, using the maximum amount of raw materials for the maximum number of days/year.

BATCH

Actual, Units/Batch: Enter the actual number of product-units per product which are produced by this process per batch during normal operation.

Actual, Hours/Batch: Enter the number of hours to process one batch under normal operating conditions. This should be the same number as Hours/Batch under Raw Material Usage.

Actual, Batches/Year: Enter the actual number of batches processed in a year. This should be the same number as Batches/Year under Raw Material Usage.

Actual, Units/Year: Enter the actual number of product-units per product which are produced by this process in a year under normal operating conditions.

Maximum, Units/Batch: Enter the maximum number of product-units which are produced by this process per batch under maximum operating conditions.

Maximum, Hours/Batch: Enter the maximum number of hours to process one batch. This should be the same number as Maximum Hours/Batch under Raw Material Usage.

Maximum, Batches/Year: Enter the maximum number of batches that would be expected to be processed in a year. This should be the same number as Maximum Batches/Year under Raw Material Usage.

Maximum, Units/Year: Enter the maximum number of product-units which may be produced by this process under maximum operating conditions, using the maximum amount of raw materials for the maximum number of days/year.

EMISSION UNIT / PRODUCTION RATE

Emission Unit Name _____ Emission Unit ID # _____ EIS # _____

		CONTINUOUS		BATCH			UNITS/YR	RAW MATERIAL NUMBER
		UNITS/HR	UNITS/HR	UNITS/BATCH	HR/BATCH	BATCHES/YR		
(1)	PRODUCT NAME							
	Actual							
	Maximum							
(2)	PRODUCT NAME							
	Actual							
	Maximum							
(3)	PRODUCT NAME							
	Actual							
	Maximum							
(4)	PRODUCT NAME							
	Actual							
	Maximum							
(5)	PRODUCT NAME							
	Actual							
	Maximum							
(6)	PRODUCT NAME							
	Actual							
	Maximum							
(7)	PRODUCT NAME							
	Actual							
	Maximum							
(8)	PRODUCT NAME							
	Actual							
	Maximum							
(9)	PRODUCT NAME							
	Actual							
	Maximum							
(10)	PRODUCT NAME							
	Actual							
	Maximum							

INSTRUCTIONS FOR FORM 9440-C1 FABRIC FILTER

A fabric filter removes dust from a gas stream by passing the stream through a porous fabric. Dust particles form a porous cake on the surface of the fabric. It is normally this cake that actually does the filtration.

STACK ID(S) - Enter the unique Stack ID for each stack associated with this control device. All stack IDs must begin with the letter S followed by a number. If the stack serves several units, the same stack ID should be used to reference this stack. *Example - S31*

POSITION IN SERIES - If there are several devices operating in a series indicate in what position this device is located. If the exhaust air stream goes through this unit and then second unit then this would be the # 1 of 2 units.

CONTROL ID - Assign a unique control device ID # for this control device. All control device IDs begin with a C followed by a number. This ID must correspond to all other references in the application. *Example - C1, C135.*

EMISSION UNIT ID(S) - List all emission unit IDs whose emissions are controlled by this device. The ID(s) must correspond to the ID(s) indicated in Form 9440-B1.

MANUFACTURER - Enter the manufacturer of the device. *Example - Dusty Dustex.*

MODEL - Enter the model number of the device.

DESCRIBE CONTROL SYSTEM - Give a brief description of the control device. Include such information as other devices used in conjunction with this device; number of compartments, etc. *Example - This fabric filter is the second of two control devices with the first unit being a cyclone (C-1). This control system collects sanding dust from the #3 sanding room. It has 2 separate compartments each of which can be operated while the other is shut down for maintenance.*

POLLUTANT(S) COLLECTED - Enter the pollutant(s) collected.
Example - Particulate matter (including lead)

EFFICIENCY (%) - Enter the % of material collected of the total amount entering the device.

DETERMINATION CODE - Enter the code to represent how the efficiency was determined.

- 1 = Calculated. (Attach all calculations)
- 2 = Manufacturers specifications. (Enclose documentation)
- 3 = Source test. (Attach documentation or reference test reports already submitted to the District.

PRESSURE DROP (IN H₂O) - Enter the design pressure drop range across the device in inches H₂O during normal operation.

AFR (ACFM) - Enter the actual air flow rate in actual cubic feet per minute during normal operation.

INLET TEMP (°F) - Enter the inlet temperature during normal operation.

OUTLET TEMP (°F) - Enter the outlet temperature during normal operation.

FILTER MATERIAL - Enter the filter material type. This can be obtained by contacting the supplier of the filter. Examples - fiberglass, nomex, wool, cotton, nylon, etc.

FABRIC FILTER (cont)

DISPOSITION OF COLLECTED MATERIAL – What happens to the material collected. *Example – recycled and used in the process. Disposed of in a landfill.*

AIR TO CLOTH RATIO – This is the ratio between the actual air flow rate (ACFM) listed above and the filter surface area listed in the next block.

Example – 10,000 ACFM divided by 1000 square feet of filter area would give an air to cloth ratio of 10:1.

FILTER SURFACE AREA (ft²) – The total square feet of filter surface area. Round off to the nearest whole number.

DESCRIBE CLEANING PROCEDURES – Most fabric filters have a mechanism to clean the filter media on a regular basis. The most common techniques are shaker, reverse air, pulse jet, and sonic cleaning. There are some types that require the replacement of the filter media rather than cleaning. Other parameters to include would be the frequency of cleaning, on-stream or off-stream cleaning, duration of cleaning, PSI, etc. Describe the cleaning procedures.

DESCRIBE MAINTENANCE PROCEDURES – Routine maintenance is one of the most important factors in maintaining continual compliance using a fabric filter. This is especially true when abrasive particulates are being collected. Describe all maintenance procedures including the monitoring of pressure drops, temperature, dust removal, opacity, etc. Describe methods used and frequency to detect leaks and holes in filter media. List spare parts/filters maintained on site.

DESCRIBE ANY MONITORING DEVICES, GAUGES, TEST PORTS, ETC. – List any devices and/or gauges installed on the system. *Example – magnahelics, temperature gauges, opacity monitors, etc.* Describe any test ports available for inspectors to conduct measurements of temperature and pressure drop. Describe quality assurance procedures to assure all gauges are operating properly.

SCHEMATIC OF CONTROL DEVICE – Provide a schematic of the control device unless it is included in the manufacturer's literature enclosed.

FORM 9440-C1

[illegible]

INSTRUCTIONS FOR FORM 9440-C2 ELECTROSTATIC PRECIPITATOR (ESP)

An electrostatic precipitator removes particulate matter from a gas stream by passing the gas stream through discharge electrodes and collection plates. Most particulates become charged and are collected on the plates.

STACK ID(S) – Enter the unique stack ID for each stack associated with this control device. If the stack serves several units, the same stack ID should be used to reference this stack. All stack IDs must begin with the letter S followed by a number. *Example – S21*

POSITION IN SERIES – If there are several devices operating in a series indicate in what position this device is located. If the exhaust air stream goes through this unit and then a second unit then this would be the # 1 of 2 units.

CONTROL ID – Assign a unique control device ID for this control device. All control device IDs must begin with a C followed by a number. This ID must correspond to the ID used for this control device on all other references. *Example – C1, C135.*

CONTROL DEVICE IS ASSOCIATED WITH EMISSION UNIT ID(S) – List all emission unit IDs whose emissions are controlled by this device. The ID(s) must correspond to the ID(s) indicated in Form 9440-B.

MANUFACTURER – Enter the manufacturer of the device. *Example – Buell.*

MODEL – Enter the model number of the device.

DESCRIBE CONTROL SYSTEM – Describe the type of ESP: single stage, two stage, low voltage, high voltage, hot side, cold side, other (describe), negative or positive corona. Also, list any ancillary equipment: level detectors, hopper insulation, hopper heaters, and weather enclosures.

POLLUTANT COLLECTED – Enter the pollutant collected.
Example – Particulate matter.

EFFICIENCY (%) – Enter the % of material collected of the total amount entering the device.

DETERMINATION CODE – Enter the code to represent how the efficiency was determined.

- 1 = Calculated. (Attach all calculations)
- 2 = Manufacturers specifications. (Enclose documentation)
- 3 = Source test. (Attach documentation or reference test reports already submitted to the District.

PRESSURE DROP (IN H₂O) – Enter the design pressure drop range across the device in inches H₂O during normal operation.

AFR (ACFM) – Enter the actual air flow rate in actual cubic feet per minute during normal operation.

INLET TEMP (°F) – Enter the inlet temperature during normal operation.

OUTLET TEMP (°F) – Enter the outlet temperature during normal operation.

DISPOSITION OF COLLECTED MATERIAL – What happens to the material collected.
Example – recycled and used in the process. Material was disposed of in a landfill.

ESP (cont)

COLLECTION PLATE AREA (ft²) – Enter the total ESP collection plate surface area expressed in square feet. See manufacturers specifications.

NO. OF COMPARTMENTS – List the number of compartments and their arrangement (series or in parallel sections).

NO. OF CELLS PER COMPARTMENT – List the number of cells per compartment.

FIELD STRENGTH (VOLTS)

CHARGING – Enter the volts of field strength imparting the charge to the particles to be collected.

COLLECTING – Enter the volts of field strength where particles are to be collected.

CORONA POWER (WATTS/1000 CFM) – List the corona power (power input) in watts per 1000 CFM. See manufacturer specifications.

ELECTRICAL USAGE (KW/HR) – List electrical usage in kilowatts per hour.

RESISTIVITY OF POLLUTANT (OHM-CM) – List the resistivity of pollutant to be collected by the unit. Resistivity is the overall resistance to charge dissipation to the ESP collection plate.

GAS VISCOSITY (POISE) – If the gas stream is other than predominantly air, list the viscosity of the gas stream in poise.

DESCRIBE CLEANING METHOD – List the cleaning method(s) used. *Example – plate rapping, plate vibrating, washing.*

DESCRIBE ANY MAINTENANCE PROCEDURES – Describe maintenance procedures performed on ESP.

DESCRIBE ANY MONITORING DEVICES, GAUGES, TEST PORTS, ETC. – Describe any stack monitoring devices, gauges, or test port locations. Provide any calibration or maintenance activities and frequency. Also describe the quality assurance procedures to prove the gauges are calibrated and operating correctly. *Examples – Primary voltage, secondary current, spark rate meter gauges, stack temperature, opacity monitor, etc.*

SCHEMATIC OF CONTROL DEVICE – Provide a schematic of the control device unless it is included in the manufacturer's literature enclosed.

FORM 9440-C2

CONTROL DEVICE (ESP)

[illegible]

INSTRUCTIONS FOR FORM 9440-C3 THERMAL

A control device which operates by thermal (non-catalytic) and catalytic incineration can oxidize any hydrocarbons and/or toxic pollutants into carbon dioxide and water. High temperature and residence time must be sufficient to obtain the desired oxidation results.

STACK ID(S) – Enter the unique stack ID for each stack associated with this control device. If the stack serves several units, the same stack ID should be used to reference this stack. All stack IDs must begin with S followed by a number. *Example – S10*

POSITION IN SERIES – If there are several devices operating in a series indicate in what position this device is located. If the exhaust air stream goes through this unit and then a second unit then this would be the # 1 of 2 units.

CONTROL ID – Assign a unique control device ID for this control device. All control device IDs begin with a C followed by a number. This ID must correspond to the ID used for this control device on all other references. *Example – C1, C135.*

EMISSION UNIT ID(S) – List all emission unit IDs whose emissions are controlled by this device. The ID(s) must correspond to the ID(s) indicated in Form 9440-B1.

MANUFACTURER – Enter the manufacturer of the device. *Example – Buell.*

MODEL – Enter the model number of the device.

DESCRIBE CONTROL SYSTEM – Provide a brief description of control system.
Example – Thermal incinerator which controls VOC emissions from can painting line.

Specify whether incinerator is direct-flame (thermal) or catalytic.

IF CATALYST USED

TYPE – Enter the type of catalyst material. *Example – Palladium on ceramic honeycomb design.*

SQUARE FEET OF CATALYST – Enter the square feet of catalyst surface area.

POLLUTANT(S) REMOVED – Enter the pollutant(s) destroyed by the control device. *Example – Toluene, MEK, Xylene.*

EFFICIENCY (%) – Enter the overall destruction efficiency of the device.

DETERMINATION CODE – Enter the code to represent how the efficiency was determined.

- 1 = Calculated. (Attach all calculations)
- 2 = Manufacturers specifications. (Enclose documentation)
- 3 = Source test. (Attach documentation or reference test reports already submitted to the District.

INLET TEMP (°F) – Enter the inlet temperature during normal operation.

OUTLET TEMP (°F) – Enter the outlet temperature during normal operation.

AIR FLOW RATE (ACFM) – Enter the actual air flow rate in actual cubic feet per minute during normal operation.

THERMAL (cont.)

COMBUSTION CHAMBER VOLUME (ft³) - Enter the volume of the combustion chamber.

COMBUSTION TEMP (°F) - Enter the minimum temperature in the combustion chamber during normal operation.

EXCESS AIR - Enter the amount of air provided in excess of that ideally required for complete combustion.

MOISTURE CONTENT OF THE EMISSIONS STREAM (%) - Give the maximum % of moisture in the emission stream.

METHOD USED TO INCREASE MIXING - Higher destruction efficiencies are achieved by thoroughly mixing the gas stream in the combustion chamber. Describe the methods used to enhance mixing. *Example - Refractory baffles, baffle plates, swirl-fired burner.*

DESCRIBE STARTUP/SHUTDOWN PROCEDURES - Describe in detail the steps taken to bring the incinerator from a cold state to maximum operation and then through shutdown.

DESCRIBE MAINTENANCE PROCEDURES - Describe maintenance procedures performed on the control device.

DESCRIBE ANY MONITORING DEVICES, GAUGES, TEST PORTS, ETC. - Describe any stack monitoring devices, gauges, or test port locations. Provide any calibration or maintenance activities and frequency. Also describe the quality assurance procedures to assure the gauges are calibrated and operating correctly. *Example - Temperature, CO Monitor, opacity monitor.*

TYPE FUEL - Enter the type(s) of fuel(s) used in the device.

TOTAL MAX FIRING RATE (MILLION BTU/HR) - Enter the total maximum firing rate for all burners based on input.

MAX ANNUAL FUEL USE - Indicate the maximum of fuel you propose to burn in one year. If this is less than the maximum capacity of the fuel burners then the unit will be restricted to this amount.

MAX HOURLY FUEL USE - Indicate the maximum amount of fuel you propose to burn in one hour. If this is less than the maximum capacity of the fuel burners then the unit will be restricted to this amount.

ACTUAL ANNUAL FUEL USE - Indicate the actual amount of fuel consumed in one year during normal operation.

ACTUAL HOURLY FUEL USE - Indicate the actual amount of fuel consumed in one hour during normal operation.

UNITS - Indicate the unit for the fuel use data entered in this section.

FORM 9440-C3

CONTROL DEVICE (THERMAL)

Stack (IDs):		Position in Series of Controls: # of units		Control ID:
Control device is associated with Emission Unit ID(s):				
Manufacturer:			Model:	
Describe Control System:				
If Catalyst Used:		Type:	Sq. Feet of Catalyst:	
Pollutant(s) Removed:		Efficiency (%):	Deter Code:	
Inlet Temp (°F):		Outlet Temp (°F):		
Air Flow Rate (ACFM):				
Combustion Chamber Volume (ft³):			Combustion Temp	
% Excess Air:		Moisture content of the emissions stream (%):		
Method used to increase mixing:				
Describe Startup Procedures:				
Describe Maintenance Procedures:				
Describe Any Monitoring Devices, Gauges, Test Ports, etc:				
Type Fuel:		Total Max Firing Rate (MMBtu/HR):		
Max Annual Fuel Use:		Max Hourly Fuel Use:		Units:
Actual Annual Fuel Use:		Actual Hourly Fuel Use:		
Include Schematic of Control Device on Separate Page				

INSTRUCTIONS FOR FORM 9440-C4 ADSORBER

Adsorption is a control where gaseous pollutants are extracted from gas phase and concentrated at the surface of a solid or liquid. Carbon is commonly used to adsorb volatile organic compounds from an airstream.

STACK ID(S) – Enter the unique stack ID for each stack associated with this control device. Each stack ID must correspond to all other references to each stack. If the stack serves several units, the same stack ID should be used to reference this stack. All stack IDs must begin with S followed by a number. *Example - S5*

POSITION IN SERIES – If there are several devices operating in a series indicate in what position this device is located. If the exhaust air stream goes through this unit and then a second unit then this would be the # 1 of 2 units.

CONTROL ID – Assign a unique control device ID for this control device. All control device IDs begin with a C followed by a number. This ID must correspond to the ID used for this control device on all other references. *Example - C1, C135.*

EMISSION UNIT ID(S) – List all emission unit IDs whose emissions are controlled by this device. The ID(s) must correspond to the ID(s) indicated in Form 9440-B.

MANUFACTURER – Enter the manufacturer of the device. *Example - Buell.*

MODEL – Enter the model number of the device.

DESCRIBE CONTROL SYSTEM – Give a detailed description of the adsorber system used. Indicate whether the system is a recirculating system, a nonregenerative system, or a regenerative system; whether the system has a fixed, moving, or fluidized bed, whether it involves multiple beds, and any other relevant information. Include the gas pretreatment methods such as particulate removal, heat exchange, dehumidification, etc. List the methods for bed regeneration such as thermal, chemical, pressure swing, displacement cycle, etc. Attach a blueprint or diagram of the system along with the manufacturer's literature.

POLLUTANT(S) COLLECTED – Enter the pollutant(s) collected. *Example - VOC.*

AFR (ACFM) – Enter the actual air flow rate in actual cubic feet per minute during normal operation.

INLET TEMP (°F) – Enter the inlet temperature during normal operation.

PRESSURE DROP (IN. H₂O) – Enter the design pressure drop range across the device in inches H₂O during normal operation. *Example - 4-6 inches.*

OUTLET TEMP (°F) – Enter the outlet temperature during normal operation.

SIZE OF COMPARTMENTS (FT) – Specify the dimensions of the adsorber bed, either length, width, and height, or bed depth and radius in feet. The bed depth is the dimension parallel to the gas flow.

TYPE OF ADSORPTION MATERIAL – Provide the chemical composition of the bed material. *Example - powdered coal base activated carbon, granular wood base activated carbon, modified zeolite, clays, oxides, nutshell base activated carbon.* Include manufacturer's literature if available.

ADSORBER (cont)

NUMBER OF COMPARTMENTS – This is the number of compartments or beds into which the adsorber unit is divided. The gas flow can be cut off individually from these beds. Include all the beds that are in use.

VOLATILE CONCENTRATIONS (PPM-V)

ENTERING UNIT – Specify the total VOC concentration of the gas stream entering the adsorber unit in the volume of VOC per million volumes of gas stream.

LEAVING UNIT – Specify the total VOC concentration of the gas stream leaving the adsorber unit.

RELATIVE HUMIDITY OF AIR STREAM ENTERING UNIT – Specify the relative humidity of the gas stream that enters the adsorber unit.

EFFICIENCY – Give the overall efficiency in weight percentage for the adsorber used. This is the design efficiency of the adsorber for the design pollutant. Include documentation to support the efficiency.

ORIENTATION OF BEDS – Specify whether the adsorption beds are vertical or horizontal.

DETERMINATION METHOD – Enter the code to represent how the efficiency was determined.

- 1 = Calculated. (Attach all calculations)
- 2 = Manufacturers specifications. (Enclose documentation)
- 3 = Source test. (Attach documentation or reference test reports already submitted to the District.

BREAKTHROUGH CAPACITY – Provide the breakthrough capacity in pounds of vapor per pound of adsorbent. This is the capacity of the bed at which unreacted vapors begin to be exhausted.

CYCLE TIME – Specify the service time of the adsorber before breakthrough including units.

DISPOSITION OF COLLECTED MATERIAL – Describe final disposition of adsorbed material.
Example – reused, disposed of as hazardous waste.

DESCRIBE MAINTENANCE PROCEDURES – Provide a detailed explanation of the maintenance procedures used to assure unit is operating at maximum efficiency.

DESCRIBE ANY MONITORING DEVICES, GAUGES, TEST PORTS, ETC. – Describe any stack monitoring devices, gauges, or test port locations. Provide any calibration or maintenance activities and frequency. Also describe the quality assurance procedures to assure the gauges are calibrated and operating correctly. *Example - inlet/outlet vapor concentrations, temperature, etc.*

SCHEMATIC OF CONTROL DEVICE – Provide a schematic of the control system unless included with manufacturers literature. Indicate all equipment, mass flow, exhaust, air flow, fuel pipes, water pipes, collection areas, removal of collected material, etc.

FORM 9440-C4

[illegible]

INSTRUCTIONS FOR FORM 9440-C5 MECHANICAL

Mechanical collectors, such as settling chambers, cyclones, and multicyclones, utilize gravity and inertia to separate particulates from a gas stream.

STACK ID(S) – Enter the unique Stack ID for each stack associated with this control device. Each ID must correspond to the Stack ID used in all other references to each stack. If the stack serves several units, the same Stack ID should be used to reference this stack. All stack IDs must begin with the letter S followed by a number. *Example – S22*

POSITION IN SERIES – If there are several devices operating in a series indicate in what position this device is located. If the exhaust air stream goes through this unit and then a second unit then this would be the # 1 of 2 units.

CONTROL ID – Assign a unique control device ID for this control device. All control device IDs must begin with C followed by a number. This ID must correspond to the ID used on all other references. *Example – C1, C135.*

EMISSION UNIT ID(S) – List all emission unit IDs whose emissions are controlled by this device. The ID(s) must correspond to the ID(s) listed in Form 9440-B1.

MANUFACTURER – Enter the manufacturer of the device.

MODEL – Enter the model number of the device.

DESCRIBE CONTROL SYSTEM – Provide a detailed description of the control device. Include all information needed to evaluate the system that is not already included.

POLLUTANT(S) COLLECTED – Enter the pollutant(s) collected.
Example – Particulate (cement).

EFFICIENCY (%) – Enter the % of material collected of the total amount entering the device.

INLET TEMP (°F) – Enter the inlet temperature during normal operation.

PRESSURE DROP (IN. H₂O) – Enter the design pressure drop range across the device in inches H₂O during normal operation. *Example – 4-6 inches.*

DETERMINATION CODE – Enter the code to represent how the efficiency was determined.

- 1 = Calculated. (Attach all calculations)
- 2 = Manufacturers specifications. (Enclose documentation)
- 3 = Source test. (Attach documentation or reference test reports already submitted to the District.

OUTLET TEMP (°F) – Enter the outlet temperature during normal operation.

AIR FLOW RATE (ACFM) – Enter the actual air flow rate in actual cubic feet per minute during normal operation.

DISPOSITION OF REGENERATED MATERIAL – Describe the final disposition of collected material. *Example – reused, disposed of as hazardous waste.*

MECHANICAL (cont.)

SETTLING CHAMBER – There are two types of gravity settling chambers: the **SIMPLE EXPANSION CHAMBER** and **THE MULTIPLE TRAY SETTLING CHAMBER**. The **SIMPLE EXPANSION CHAMBER** is basically a long, horizontal box with inlet, outlet and collection hoppers. The gas stream enters the expansion section of the device and its velocity is reduced, thereby allowing particulate matter in the gas stream to be collected by gravity. The **MULTIPLE TRAY SETTLING CHAMBER** (Howard settling chamber) operates on the same principle as the simple expansion chamber, but there are several horizontal collection plates in order to shorten the settling path of the particle, thus enhancing collection efficiency. The **BAFFLE CHAMBER** is a variation of the settling chamber. These units have baffles within the chamber in order to impart a downward motion to the particles in the gas stream, thus collection is accomplished by inertia as well as gravity.

DIMENSIONS (TO NEAREST INCH) –

LENGTH – Length of the chamber in feet and inches.

WIDTH – Width of the chamber in feet and inches.

HEIGHT – Greatest distance a particle must fall to be collected. In multiple tray devices this is the distance between trays.

VELOCITY (FT/SEC) – Specify the velocity at which the particulate laden gas travels through the chamber.

TRAYS – If device is of multiple tray design, specify number of horizontal trays.

BAFFLES – If the device is a baffle chamber, specify the number of baffles.

CYCLONE – An inertial separator in which the particulate laden gas stream is forced to spin in a vortex. As the gas changes direction, the inertia of the particles causes them to be separated from the gas stream and collected.

INLET VELOCITY (FT/SEC) – The velocity of the air stream entering the cyclone.

DIMENSIONS – Provide the dimensions of the cyclone. Refer to the diagram below for a description of variables for a typical top inlet cyclone. For other types of cyclones (such as bottom inlet, axial inlet or straight-through designs) provide a diagram labeling the dimensions of the analogous parts.

IF WET SPRAY UTILIZED – If wet spray is used inside the cyclone to enhance collection efficiency complete this section.

LIQUID USED – Specify liquid that is sprayed.

FLOW RATE – Rate of liquid application in gallons per minute.

MAKE UP RATE – Rate of replacement for liquid lost to evaporation, absorption and disposal, in gallons per minute.

MULTICYCLONE – When high efficiency and large throughput are necessary, multiple cyclones may be operated in parallel. In a multiple cyclone separator, the housing typically contains a large number of axial inlet cyclone tubes.

NO. TUBES – Number of tubes in the multicyclone.

DIAMETER OF TUBES – Diameter of tubes in inches.

IS A HOPPER ASPIRATION SYSTEM UTILIZED? – Yes or No. Hopper aspiration is when a small portion of the total gas flow is drawn off through the collection hopper, which can increase collection efficiency by reducing particulate reentrainment into cyclone tubes.

DESCRIBE MAINTENANCE PROCEDURES – Provide a detailed explanation of the maintenance procedures used to assure unit is operating at maximum efficiency.

DESCRIBE ANY MONITORING DEVICES, GAUGES, TEST PORTS, ETC. – Describe any stack monitoring devices, gauges, or test port locations. Provide any calibration or maintenance activities and frequency. Also describe the quality assurance procedures to assure the gauges are calibrated and operating correctly.

SCHEMATIC OF CONTROL DEVICE – Provide a schematic of the control system unless included with manufacturers literature.

FORM 9440-C5

[illegible]

INSTRUCTIONS FOR FORM 9440-C6 ABSORBER

A gas absorber is a control device where one or more selected gaseous pollutants are removed by treatment with a liquid through thorough contact.

STACK ID(S) – Enter the unique stack ID for each stack associated with this control device. Each ID must correspond to all other references to each stack. If the stack serves several units, the same stack ID should be used to reference this stack. All stack IDs must begin with S followed by a number. *Example – S34*

POSITION IN SERIES – If there are several devices operating in a series indicate in what position this device is located. If the exhaust air stream goes through this unit and then a second unit then this would be the # 1 of 2 units.

CONTROL ID – Assign a unique control device ID for this control device. All control device IDs must begin with a C followed by a number. This ID must correspond to all other references. *Example – C1, C135.*

CONTROL DEVICE IS ASSOCIATED WITH EMISSION UNIT ID(S) – List all emission unit IDs whose emissions are controlled by this device.

MANUFACTURER – Enter the manufacturer of the device.

MODEL – Enter the model number of the device.

DESCRIBE CONTROL SYSTEM – Give a detailed description of the gas absorber system. Include information on specific nozzle type for spray towers, throat type and throat velocity for venturi scrubbers, or packing materials and packing length for packed-bed type absorbers. Also include the liquid distribution system, the mist elimination system, and any other relevant information. Attach a blueprint or diagram of the system or the manufacturer's literature.

POLLUTANT(S) COLLECTED – Enter the pollutant collected. *Example – Ammonia.*

PRESSURE DROP (IN. H₂O) – Enter the design pressure drop range across the device in inches of water during normal operation. *Example – 4-6 inches.*

INLET TEMP. (°F) – Enter the inlet temperature during normal operation.

EFFICIENCY (%) – Enter the % of material collected of the total amount entering the device.

DETERMINATION CODE – Enter the code to represent how the efficiency was determined.

- 1 = Calculated. (Attach all calculations)
- 2 = Manufacturers specifications. (Enclose documentation)
- 3 = Source test. (Attach documentation or reference test reports already submitted to the District.

AFR (ACFM) – Enter the actual air flow rate in actual cubic feet per minute during normal operation.

OUTLET TEMP. (°F) – Enter the outlet temperature during normal operation.

GAS VELOCITY (FT/SEC) – Enter the gas velocity through the net column.

TOTAL GAS PRESSURE – Specify the total inlet gas pressure in atm.

ABSORBER (cont.)

GAS DEW POINT (°F) - Enter the temperature at which the gas stream first changes into liquid phase.

TYPE OF SYSTEM - Specify types of gas absorbing system used. *Example - spray tower, cyclone spray chamber, packed columns, plate columns, venturi scrubber, sparging tank.*

PACKED COLUMNS - Complete this only if the absorbing system is classified as a packed column system. This absorbing process is a continuous operation where the gas and liquid phases flow through the system in a continuous manner with intimate contact throughout.

TYPE OF PACKING USED - Specify packing used in your packed tower.

Example - partition tricklers, pall rings, berl saddles, tellerettes.

COLUMN LENGTH (FT) - Enter the length of the packed column.

COLUMN DIAMETER (FT) - Enter the column diameter.

PLATE COLUMNS - Complete this only if the absorbing system is classified as a plate column system. This absorbing process is a staged operation on plates or trays where the liquid and gas are contacted in stepwise fashion in the vertical cylinders.

PLATE SPACING - Enter the distance between the plates in the absorbing tower.

COLUMN LENGTH (FT) - Enter the length of the packed column.

COLUMN DIAMETER (FT) - Enter the column diameter.

pH OF LIQUID - Enter design pH of liquid.

LIQUID USED - Specify what kind of liquid is used. Include the name of the additives.
Example - propanol, detergents, etc.

PERCENT RECIRCULATED - If the absorber is operated with recirculating slurries or solutions, specify the percentage of the liquid returned to the system.

TOTAL LIQUID INJECTION RATE (GAL/MIN) - Enter the total volumetric flow rate of the liquid.

MAKE UP RATE (GAL/MIN) - Specify the amount of new liquid that must be added to the system due to evaporation or discharge to a disposal system.

DISPOSITION OF LIQUID WASTE - What happens to liquid waste after it is discharged from absorber.

DESCRIBE MAINTENANCE PROCEDURES - Provide a detailed explanation of the maintenance procedures employed to minimize emissions from the unit.

DESCRIBE ANY MONITORING DEVICES, GAUGES, TEST PORTS, ETC. - Describe any stack monitoring devices, gauges, or test port locations. Provide any calibration or maintenance activities and frequency. Also describe the quality assurance procedures to assure the gauges are calibrated and operating correctly.

SCHEMATIC OF CONTROL DEVICE - Provide a schematic of the control system. Indicate all equipment, mass flow, exhaust, air flow, fuel pipes, water pipes, collection areas, removal of collected material, etc.

[illegible]

INSTRUCTIONS FOR FORM 9440-C7 WET SCRUBBER

Wet scrubbers are commonly used to separate particulates (sometimes gases) from an airstream. Scrubber liquids are introduced for particle collection. The system performance depends on the particle size of the pollutant being collected.

STACK ID(S) – Enter the unique Stack ID for each stack associated with this control device. Each ID must correspond to all other references to each stack. If the stack serves several units, the same Stack ID should be used to reference this stack. All Stack IDs must begin with S followed by a number. *Example S6.*

POSITION IN SERIES – If there are several devices operating in a series indicate in what position this device is located. If the exhaust air stream goes through this unit and then a second unit then this would be the # 1 of 2 units.

CONTROL ID – Assign a unique control device ID for this control device. All control device IDs begin with a C followed by a number. This ID must correspond to all other references. *Example - C1, C135.*

EMISSION UNIT ID(S) – List all emission unit IDs whose emissions are controlled by this device. The ID(s) must correspond to the ID(s) indicated in Form 9440-B1.

MANUFACTURER – Enter the manufacturer of the device.

MODEL – Enter the model number of the device.

DESCRIBE CONTROL SYSTEM – Give a detailed description of the wet scrubber system used. Include information on specific nozzle type for spray towers, throat type and throat velocity for venturi scrubbers, or packing materials and packing length for packed-bed type scrubbers. Also include the liquid distribution system, the mist elimination system, and any other relevant information. Include manufacturer's literature.

POLLUTANT COLLECTED – Enter the pollutant collected.
Example - Particulates (lime dust).

PRESSURE DROP (IN. H₂O) – Enter the design pressure drop range across the device in inches H₂O during normal operation. *Example - 4-6 inches.*

INLET TEMP. (°F) – Enter the inlet temperature during normal operation.

EFFICIENCY (%) – Enter the % of material collected of the total amount entering the device.

DETERMINATION CODE – Enter the code to represent how the efficiency was determined.

- 1 = Calculated. (Attach all calculations)
- 2 = Manufacturer's specifications. (Enclose documentation)
- 3 = Source test. (Attach documentation or reference test reports already submitted to the District.)

AFR (ACFM) – Enter the actual air flow rate in actual cubic feet per minute during normal operation.

OUTLET TEMP. (°F) – Enter the outlet temperature during normal operation.

WET SCRUBBER (cont.)

TYPE OF SYSTEM – Specify type of particulate scrubber system used.

Example - spray tower, cyclone spray tower, packed bed scrubber, tray-type scrubber, mechanically aided scrubber, venturi scrubber, orifice scrubber.

TYPE OF PACKING USED IF ANY – Specify packing used in your packed tower.

Example - partition tricklers, pall rings, berl saddles, tellerettes.

LIQUID USED – Specify what kind of liquid is used. Include the name of the additives.

Example - propanol, detergents, etc.

pH - pH of liquid used - design.

PERCENT RECIRCULATED – If the scrubber is operated with recirculating slurries or solutions, specify the percentage of the liquid returned to the system.

TOTAL LIQUID INJECTION RATE (GAL/MIN) – Specify the total volumetric flow rate of the liquid.

MAKE UP RATE (GAL/MIN) – Specify the amount of new liquid that must be added to the system due to evaporation or discharge to a disposal system.

DISPOSITION OF LIQUID WASTE - What happens to liquid waste after it is discharged from scrubber.

DESCRIBE MAINTENANCE PROCEDURES – Provide a detailed explanation of the maintenance procedure used to minimize emissions from the unit.

DESCRIBE ANY MONITORING DEVICES, GAUGES, TEST PORTS, ETC. – Describe any stack monitoring devices, gauges, or test port locations. Provide any calibration or maintenance activities and frequency. Also describe the quality assurance procedures to assure the gauges are calibrated and operating correctly.

SCHEMATIC OF CONTROL DEVICE – Provide a schematic of the control system. Indicate all equipment, mass flow, exhaust, air flow, fuel pipes, water pipes, collection areas, removal of collected material. Disregard if manufacturer's literature includes this.

FORM 9440-C7

CONTROL DEVICE (WET SCRUBBER)

STACK ID(s):	Position in series of controls:	#	of	units	Control ID:
Control Device is associated with Emission Unit ID(s):					
Manufacturer:			Model:		
Describe Control System: 					
Pollutant(s) Collected:		Pressure Drop (in H ₂ O):		Inlet Temp (°F):	
Eff (%):	Deter Code:	AFR (ACFM):		Outlet Temp (°F):	
Type of System:			Type of Packing (if any):		
Liquid Used:	pH of Liquid:	Percent Recirculated:			
Total Liquid Injection Rate (gal/min):			Make Up Rate (gal/min):		
Disposition of Liquid Waste:					
Describe Maintenance Procedures: 					
Describe any Monitoring Devices, Gauges, Test Ports, etc.: 					
Schematic of Control Device:					

INSTRUCTIONS CONTROL DEVICE (OTHER) FORM 9440-C10

STACK ID(S) – Enter the unique stack ID for each stack associated with this control device. If the stack serves several units, the same stack ID should be used to reference this stack. All stack IDs must begin with the letter S followed by a number. *Example - S21.*

POSITION IN SERIES – If there are several devices operating in a series indicate in what position this device is located. If the exhaust air stream goes through this unit and then a second unit then this would be the #1 of 2 units.

CONTROL ID – Assign a unique control device ID for this control device. All control device IDs must begin with a C followed by a number. This ID must correspond to the ID used for this control device on all other references. *Example - C1, C135.*

CONTROL DEVICE IS ASSOCIATED WITH EMISSION UNIT ID(S) – List all emission unit IDs whose emissions are controlled by this device. The ID(s) must correspond to the ID(s) indicated in Form 9440-B.

MANUFACTURER – Enter the manufacturer of the device. *Example - Buell.*

MODEL – Enter the model number of the device.

DESCRIBE CONTROL SYSTEM – Provide a brief description of the control system.

POLLUTANT COLLECTED – Enter the pollutant collected. *Example - Particulate matter.*

EFFICIENCY (%) – Enter the % of material collected of the total amount entering the device.

DETERMINATION CODE – Enter the code to represent how the efficiency was determined.

- 1 = Calculated. (Attach all calculations)
- 2 = Manufacturers specifications. (Enclose documentation)
- 3 = Source test. (Attach documentation or reference test reports already submitted to the District.

INLET TEMP (°F) – Enter the inlet temperature during normal operation.

OUTLET TEMP (°F) – Enter the outlet temperature during normal operation.

AFR (ACFM) – Enter the actual air flow rate in actual cubic feet per minute during normal operation.

DESCRIBE CLEANING METHOD – List the cleaning method(s) used.

DESCRIBE ANY MAINTENANCE PROCEDURES – Describe maintenance procedures/

DESCRIBE ANY MONITORING DEVICES, GAUGES, TEST PORTS, ETC. – Describe any stack monitoring devices, gauges, or test port locations. Provide any calibration or maintenance activities and frequency. Also describe the quality assurance procedures to prove the gauges are calibrated and operating correctly.

NOTE: For Process/Emission Point Parameters: Transfer all appropriate emissions data to Form 9440-E.

FORM 9440-C10

CONTROL DEVICE (OTHER)

STACK ID(s):	Position in series of controls: # of units	Control ID:
Control Device is associated with Emission Unit ID(s):		
Manufacturer:	Model:	
Describe Control System:		
Pollutant(s) Removed:	Efficiency (%):	Deter Code:
Inlet Temp (°F):	Outlet Temp (°F):	
Air Flow Rate (ACFM):		
Method used to determine efficiency:		
Describe Startup Procedures:		
Describe Maintenance Procedures:		
Describe any Monitoring Devices, Gauges, Test Ports, etc.:		
Include Schematic of Control Device on Separate Page		

**This Type II FEDOOP Permit Application
does not have a
Form 9440-D for Alternative Scenarios**

INSTRUCTIONS FOR FORM 9440-E EMISSIONS DATA

EMISSION UNIT NAME – Enter the company designated name for the emission unit. The name must be entered exactly the same way that it appears in Form 9440-B.

EMISSION UNIT ID # – Enter the company designated ID number for this emission unit. The ID number must correspond to the ID number referenced in Form 9440-B.

EIS # – Enter the unique company ID number assigned by the District.

EMISSION POINT # – Identify any emission point(s) associated with this emission unit. Enter the emission point number(s) as referenced in Form 9440-B.

REGULATED AIR POLLUTANT – List all regulated air pollutants being emitted at this source. Show all emissions, including fugitive emissions, for Carbon Monoxide (CO), Oxides of Nitrogen (NO_x), Sulfur Dioxide (SO₂), Volatile Organic Compounds (VOC), Particulate Matter (PM), Particulate Matter < 10 microns (PM₁₀), Lead, Hydrogen Sulfide, Nitrogen Dioxide, Ozone, Fluorides (as HF), Hazardous Air Pollutants (HAP), any compounds listed in section 112(r), any Class I or II substances regulated under Title VI, any Toxic Air Pollutant (TAP) regulated under 5.11 or 5.12, or any other regulated air pollutant.

CAS NUMBER – Enter the Chemical Abstracts Services (CAS) number for each pollutant.

MAXIMUM EMISSION RATE – The maximum emissions rate is the emissions that would occur operating at maximum physical capacity and continuous year round operation after control equipment. Enter the maximum emission rate using the units that are specified in the applicable regulations.

DETERMINATION METHOD – The method used to quantify emissions must be specified. If a method other than a method listed at the bottom of Form 9440-E is used, enter "6" in the appropriate column (DM) and provide the calculations used to determine the emissions for that pollutant.

REGULATORY ALLOWABLE EMISSIONS RATE – Enter the emission rate using the units that are specified in the applicable regulation. Indicate the applicable regulation number.

REQUESTED EMISSIONS RATE – Enter the **lower** of the maximum emission rate and the regulatory allowable emission rate, or if the applicant is requesting an emission rate lower than the maximum emission rate, then enter the emission rate the applicant is willing to accept as permit limits. The emission rate listed here will be identified as the allowable emission rate in the operating permit.

CONTROL – Enter Y for yes or N for no to indicate whether the emission point is controlled.

Revised 04/23/2001
Form Set 9440

1 Determination Method: 1) Stack Test 2) Material Balance 3) Standard Emission Factor (AP42)
4) Engineering Estimate 5) Special Emission Factor 6) Other: Provide Calculations

**This Type II FEDOOP Permit Application
does not have a
Form 9440-F for Stack Height Determination**

INSTRUCTIONS FOR FORM 9440-G EMISSIONS CALCULATIONS

It is important to note that emissions calculations for all air pollutants must be submitted with the permit application in order for the District to process the application. Form 9440-G must be completed for each emission unit identified in Form 9440-B and will be used to show actual and potential emissions in LB/HR, LB/DAY (if applicable) and TPY for each emission point associated with the emission unit.

COMPANY NAME. Enter the company name as it appears on the Administrative Information Form (Form 9440-A).

EMISSION UNIT NAME. Enter the name of the emission unit exactly as it appears in Form 9440-B.

EMISSION UNIT ID #. Enter the unique ID number that was assigned to this emission unit. This number must correspond to the ID number indicated in Form 9440-B.

EMISSION POINT #. List the emission point number from which the pollutant is emitted as referenced in Form 9440-B. Use the appropriate alternative operating scenario emission point number(s), if applicable.

The following example is provided for the purpose of illustrating the type of calculations that must be submitted with a **FEDERALLY ENFORCEABLE DISTRICT-ORIGIN** permit application.

EXAMPLE: The AP-42 emission factor for emissions of SO₂ from distillate oil is 142(S) lbs/103 gal of oil burned (where S = % sulfur in the fuel). Assume that the oil has a .5% sulfur content, a 50 MMBtu/hour boiler is the emissions source, one (1) gallon of oil has a heating value of 145,000 Btu, and Section 5 of District regulation 7.06 is the applicable standard at 1 lb/MMBtu. The actual operating hours for this plant is 16 hours/day, 5 days/week, 50 weeks/year. There are no hourly or annual fuel restrictions and there are no limitations on the hours of operation.

Potential SO₂ emissions (lb/hr): Assume the boiler has no hourly fuel use restrictions and 0.5% is the maximum sulfur content of any oil to be burned. Potential emissions are based on any permitted maximums you have entered in the throughput or operating data for this unit in Form 9440-B.

$$\frac{50 \text{ MMBtu}}{\text{hr}} \times \frac{1 \text{ gal}}{145,000 \text{ Btu}} = \frac{344.8 \text{ gal}}{\text{hr}}$$

*If available, compare this number to boiler rating for gal of oil which can be burned per hour. Note any discrepancy.

$$\frac{344.8 \text{ gal}}{\text{hr}} \times \frac{142 \times (.5) \text{ lb}}{1000 \text{ gal}} = \frac{24.48 \text{ lb}}{\text{hr}}$$

Potential SO₂ emissions (lb/day): Not Applicable

Potential SO₂ emissions (TPY):

$$\frac{24.48 \text{ lb}}{\text{hr}} \times \frac{8,760 \text{ hr}}{\text{year}} = \frac{214,445 \text{ lb}}{\text{year}}$$

EMISSIONS CALCULATIONS (cont.)

$$\frac{214,445 \text{ lb}}{\text{year}} \times \frac{1 \text{ ton}}{2,000 \text{ lb}} = 107.2 \text{ TPY}$$

Actual SO₂ emissions (lb/hr): Assuming the boiler burns 1,000,000 gallons of oil per year with a maximum sulfur content of 0.5%:

$$\frac{1,000,000 \text{ gal}}{\text{year}} \times \frac{1 \text{ year}}{4,000 \text{ hr}} = \frac{250 \text{ gal}}{\text{hr}} \times \frac{142 \times (.5) \text{ lb}}{1000 \text{ gal}} = 17.75 \text{ lbs/hr}$$

Actual SO₂ emissions (TPY):

$$\frac{1,000,000 \text{ gal}}{\text{year}} \times \frac{142 \times (0.5) \text{ lb}}{1000 \text{ gal}} = \frac{71,000 \text{ lb}}{\text{year}} \times \frac{1 \text{ ton}}{2,000 \text{ lb}} = 35.5 \text{ TPY}$$

Suppose you had a permitted fuel restriction of 1.4 E6 gallons of #2 distillate oil per year, then your potential TPY emissions would be:

$$\frac{1,400,000 \text{ gal}}{\text{year}} \times \frac{142 \times (0.5) \text{ lb}}{1,000 \text{ gal}} = \frac{99,400 \text{ lb}}{\text{year}}$$

$$\frac{99,400 \text{ lb}}{\text{year}} \times \frac{1 \text{ ton}}{2,000 \text{ lb}} = 49.7 \text{ TPY}$$

POTENTIAL EMISSIONS (Units of Standard):

$$\frac{1 \text{ gal}}{145,000 \text{ Btu}} \times \frac{142 \times 0.5 \text{ lb SO}_2 \text{ emissions}}{1000 \text{ gal}} = \frac{71 \text{ lb SO}_2}{145 \text{ MMBtu}} = \frac{0.49 \text{ lb SO}_2}{\text{MMBtu}}$$

NOTE: CO, NO_x, and VOC are calculated the same way, using emission factors from AP-42.

EMISSIONS CALCULATIONS FORM 9440-G

Company Name: _____

Emission Unit Name: _____

Emission Unit ID #: _____

Emission Point #: _____

Emission Point #: _____

INSTRUCTIONS FOR FORM 9440-H EMISSIONS SUMMARY

This form is used to total the emissions of all regulated air pollutants from all emission units at this source in order to evaluate annual emissions for applicability to the Federal Clean Air Act and its Amendments of 1990.

Source Wide Summary of all Criteria Air Pollutants Regulated by the CAA of 1990:

Emission Unit ID(s): List all Emission Unit ID(s) associated with this pollutant.

Stack ID(s): List all Stack ID(s) which emit this pollutant, if any.

Control ID(s): List all Control ID(s) which control the emissions of this pollutant, if any.

Emissions (lbs/hr):

Actual: For each pollutant, total all of the actual emissions in lbs/hr, as calculated on Form 9440-G, and enter the sum here.

Potential: For each pollutant, total all of the potential emissions in lbs/hr, as calculated on Form 9440-G, and enter the sum here.

Emissions (tons/yr):

Actual: Convert the actual emissions from lbs/hr to tons/yr and enter here.

Potential: Convert the potential emissions from lbs/hr to tons/yr and enter here.

Source Wide Summary of all Non-Criteria Air Pollutants Regulated by the CAA of 1990:

Total: All Pollutants Regulated Under 112(b) of the CAA:

Emissions (lbs/hr):

Actual: Sum all of the actual lbs/hr emissions for pollutants in which the 'HAP' column is checked on the following page(s) of this form.

Potential: Sum all of the potential lbs/hr emissions for pollutants in which the 'HAP' column is checked on the following page(s) of this form.

Emissions (tons/yr):

Actual: Convert the actual emissions from lbs/hr to tons/yr and enter here.

Potential: Convert the potential emissions from lbs/hr to tons/yr and enter here.

Total: Pollutants Only Regulated Under 112(r) of the CAA:

Emissions (lbs/hr):

Actual: Sum all of the actual lbs/hr emissions for pollutants in which the '112(r)' column is the **only** column checked on the following page(s) of this form.

Potential: Sum all of the potential lbs/hr emissions for pollutants in which the '112(r)' column is the **only** column checked on the following page(s) of this form.

Emissions (tons/yr):

Actual: Convert the actual emissions from lbs/hr to tons/yr and enter here.

Potential: Convert the potential emissions from lbs/hr to tons/yr and enter here.

Total: Pollutants Only Regulated Under Title VI of the CAA:

Emissions (lbs/hr):

Actual: Sum all of the actual lbs/hr emissions for pollutants in which the 'VI' column is the **only** column checked on the following page(s) of this form.

Potential: Sum all of the potential lbs/hr emissions for pollutants in which the 'VI' column is the **only** column checked on the following page(s) of this form.

Emissions (tons/yr):

Actual: Convert the actual emissions from lbs/hr to tons/yr and enter here.

Potential: Convert the potential emissions from lbs/hr to tons/yr and enter here.

EMISSIONS SUMMARY (cont.)

Total: Volatile Organic Compounds (VOC):

Emissions (lbs/hr):

Actual: Sum all of the actual lbs/hr emissions for pollutants in which the 'VOC' column is checked on the following page(s) of this form.

Potential: Sum all of the potential lbs/hr emissions for pollutants in which the 'VOC' column is checked on the following page(s) of this form.

Emissions (tons/yr):

Actual: Convert the actual emissions from lbs/hr to tons/yr and enter here.

Potential: Convert the potential emissions from lbs/hr to tons/yr and enter here.

Pollutant: List all regulated pollutants not previously listed on page 1 of this form.

CAS Number: List the CAS number for each regulated air pollutant. This is the Chemical Abstract Service Registry Number assigned to each constituent by the American Chemical Society.

VOC: Place an 'x' in this column if the pollutant is a Volatile Organic Compound.

TAP: Place an 'x' in this column if the pollutant is regulated as a Toxic Air Pollutant under District Regulations 5.11 or 5.12.

HAP: Place an 'x' in this column if the pollutant is regulated as a Hazardous Air Pollutant under Section 112(b) of the CAA.

112(r): Place an 'x' in this column if the pollutant is regulated pursuant to Section 112(r) of the CAA and 40 CFR 68.

VI: Place an 'x' in this column if the pollutant is regulated under Title VI of the CAA.

Note: Multiples of this form shall be used, as needed.

Example:

NON-CRITERIA POLLUTANT	CAS NUMBER	VOC	TAP	112 (b) HAP	112 (r)	VI	EMISSION UNIT ID(S)	STACK ID(S)	CONTROL ID(S)	EMISSIONS			
										(lb/hr)		(tons/year)	
										ACT.	POT.	ACT.	POT.
Methyl methacrylate	80-62-6	x	x	x			U2, U7, U10	S5	C3	5.10	10.00	15.59	43.58

EMISSIONS SUMMARY FORM 9440-H

EIS # _____ Page 1 of _____

SOURCE WIDE SUMMARY OF ALL CRITERIA AIR POLLUTANTS REGULATED BY THE CAA OF 1990							
		STACK	CONTROL	EMISSIONS (LBS/HR)		EMISSIONS (TONS/YR)	
POLLUTANT	EMISSION UNIT ID(S)	ID(S)	ID(S)	ACTUAL	POTENTIAL	ACTUAL	POTENTIAL
PM							
CO							
NOx							
SO ₂							
LEAD							
FLUORIDES (as HF)							

SOURCE WIDE SUMMARY OF ALL NON-CRITERIA AIR POLLUTANTS REGULATED BY THE CAA OF 1990					
	EMISSIONS (LBS/HR)		EMISSIONS (TONS/YR)		
	ACTUAL	POTENTIAL	ACTUAL	POTENTIAL	
TOTAL: ALL POLLUTANTS REGULATED UNDER 112(b) OF THE CAA					
TOTAL: POLLUTANTS ONLY REGULATED UNDER 112(f) OF THE CAA					
TOTAL: POLLUTANTS ONLY REGULATED UNDER FEDERALLY ENFORCEABLE DISTRICT-ORIGIN OF THE CAA					
TOTAL: VOLATILE ORGANIC COMPOUNDS (VOC)					

EIS # _____ Page _____ of _____

-50-

INSTRUCTIONS FORM 9440-I

APPLICABLE REQUIREMENTS

Applicable Regulations:

Applicable local and/or federal regulations governing emissions for the mode of operation for the emission unit must be stated. The regulated air pollutant (VOC, NO_x, HAP, TAP, etc.), applicable regulation, and requirement(s) of the regulation(s) must be furnished.

- 2) Examples of emission standards and limitations set by regulation would be:

<u>Pollutant(s)</u>	<u>Applicable Regulation</u>	<u>Emission Standard</u>
VOC	7.59 Section 5 (5.12)	3.5 lbs/gal maximum regulation VOC content

- 3) An example of a recordkeeping regulation would be:

<u>Pollutant(s)</u>	<u>Applicable Regulation</u>	<u>Requirement(s)</u>
VOC	7.59 Section 8	Daily records application method and substrate type, amount and type of coating, VOC content, etc.

- 4) An example of a reporting regulation would be:

<u>Pollutant(s)</u>	<u>Applicable Regulation</u>	<u>Requirement(s)</u>
All specified air contaminants	40 CFR 60 Subpart I, 60.49b	Periodic emission reports at intervals prescribed by the District.

- 5) An example of a monitoring regulation would be:

<u>Pollutant(s)</u>	<u>Applicable Regulation</u>	<u>Requirement(s)</u>
Particulates	40 CFR 60 Subpart F, 60.63(a)	Record daily production and feed rates.

- 6) An example of a testing regulation would be:

<u>Pollutant(s)</u>	<u>Applicable Regulation</u>	<u>Requirement(s)</u>
PM	40 CFR 60 Subpart Db	Demonstrate compliance with 40 CFR 60 Subpart Db - 60.43b and 60.44b using methods specified in Subpart Db 60.46b.

An example of an exemption from an otherwise applicable requirement would be District Regulation 7.59, Section 5 which exempts a coating line from the regulation if the total VOC emissions from all coating lines that would otherwise be subject to less than five (5) tons per year.

APPLICABLE REQUIREMENTS FORM 9440-I

EMISSION UNIT NAME: _____

EMISSIONS UNIT ID # _____

EMISSION POINT # _____

- 1) Provide a description of any conditions or restrictions on operation which affect emissions or operations: (e.g. only one unit is operated at a time)

APPLICABLE REGULATIONS

- 2) Provide any specific emission standard(s) and limitations set by regulation(s) which are applicable to this emission unit (e.g. Volatile Organic Compound content of coating not to exceed 3.5 lb/gal):

Pollutant(s)	Applicable Regulation	Emission Standard

- 3) Provide any specific recordkeeping requirement which is applicable to this emission unit.

Pollutant(s)	Applicable Regulation	Requirement(s)

- 4) Provide any specific reporting requirement which is applicable to this emission unit.

Pollutant(s)	Applicable Regulation	Requirement(s)

- 5) Provide any specific monitoring requirement which is applicable to this emission unit.

Pollutant(s)	Applicable Regulation	Requirement(s)

- 6) Provide any specific testing requirement which is applicable to this emission unit.

Pollutant(s)	Applicable Regulation	Requirement(s)

**This Type II FEDOOP Permit Application
does not have a
Form 9440-J for Insignificant Activities Summary**

INSTRUCTIONS FOR FORM 9440-K COMPLIANCE MONITORING DEVICES AND ACTIVITIES

TESTING, MONITORING, RECORDKEEPING, AND REPORTING:

- 1) Examples of recorded parameters and frequency of such records would be as follows:

<u>Parameter</u>	<u>Frequency</u>
Fuel use	Recorded on a daily basis
NOx Content of Fuel	Recorded on a monthly basis

- 2) The method used to create and maintain records must be described. An example of such description would be as follows:

<u>Parameter</u>	<u>Method of Measurement</u>	<u>Person Responsible for Maintenance</u>	<u>Method of Recording</u>	<u>Person Responsible for Recording</u>
Fuel use	Flow Meter	Plant Manager	Continuous Recorder	Plant Manager

- 4) All records must be available at the source for inspection by the District, and copying or submittal to the District upon request.

- 5) The length of time records are retained from date of entry must be stated. For example, the fuel use records are retained two years from the date they are recorded.

- 6) The type, measured parameter, and location of each monitor must be stated. An example would be as follows:

Type – Continuous Opacity Monitor
Measured Parameter – Opacity
Location – Stack Exit.

- 12) Any stack tests performed on this unit in the past need to be described here. An example of a stack test description would be as follows:

<u>Test Date</u>	<u>Test Method</u>	<u>Firm</u>	<u>Operating Conditions</u>	<u>Summary of Results</u>
4/10/99	USEPA-7	ABC, Inc.	Full Capacity	Max No _x = .12 lb/MM BTU

- 13) A description of all reporting requirements must be given. An example of a reporting requirement description would be as follows:

<u>Reporting Requirements</u>	<u>Title of Report</u>	<u>Frequency</u>
Sulfur content of fuels used	Fuel Sulfur Content	Annually

COMPLIANCE MONITORING DEVICES AND ACTIVITIES FORM 9440-K

EMISSION UNIT NAME: _____

EMISSIONS UNIT ID # _____

EMISSION POINT # _____

TESTING, MONITORING, RECORDKEEPING, AND REPORTING															
<p>1) List the parameters on which records are being maintained and the frequency of such records (e.g., hourly, daily, weekly) so that compliance can be demonstrated:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center; width: 50%; border-bottom: 1px solid black;">Parameter</th> <th style="text-align: center; width: 50%; border-bottom: 1px solid black;">Frequency</th> </tr> </thead> <tbody> <tr><td style="border-bottom: 1px solid black;"> </td><td style="border-bottom: 1px solid black;"> </td></tr> <tr><td style="border-bottom: 1px solid black;"> </td><td style="border-bottom: 1px solid black;"> </td></tr> <tr><td style="border-bottom: 1px solid black;"> </td><td style="border-bottom: 1px solid black;"> </td></tr> <tr><td style="border-bottom: 1px solid black;"> </td><td style="border-bottom: 1px solid black;"> </td></tr> <tr><td style="border-bottom: 1px solid black;"> </td><td style="border-bottom: 1px solid black;"> </td></tr> <tr><td style="border-bottom: 1px solid black;"> </td><td style="border-bottom: 1px solid black;"> </td></tr> </tbody> </table>		Parameter	Frequency												
Parameter	Frequency														
<p>2) Briefly describe the method by which records will be created and maintained. For each recorded parameter, include the method of measurement, responsible person for maintenance, method of recording, and responsible person:</p> <div style="height: 40px; border: 1px solid black;"></div>															
<p>3) Is compliance of the emission unit readily demonstrated by review of the records? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If no, explain:</p> <div style="height: 40px; border: 1px solid black;"></div>															
<p>4) Are all records readily available for inspection, copying, and/or submittal to the District upon request? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If no, explain:</p> <div style="height: 40px; border: 1px solid black;"></div>															
<p>5) Indicate the length of time records are retained from the date of entry:</p> <div style="height: 40px; border: 1px solid black;"></div>															
<p>6) Describe any emission monitors used, including any opacity and oxygen/CO₂ analyzers:</p> <div style="height: 60px; border: 1px solid black;"></div>															
<p>7) What operating parameter(s) is(are) being monitored (e.g. combustion chamber temperature)?</p> <div style="height: 40px; border: 1px solid black;"></div>															
<p>8) Describe the location of each monitor:</p> <div style="height: 60px; border: 1px solid black;"></div>															
<p>9) Is each monitor equipped with a recording device? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If no, list all monitors without a recording device.</p> <div style="height: 40px; border: 1px solid black;"></div>															

COMPLIANCE MONITORING DEVICES AND ACTIVITIES

FORM 9440-K

(continued)

10) Is each monitor reviewed for accuracy at least quarterly? If no, explain:	<input type="checkbox"/> Yes <input type="checkbox"/> No																					
11) Is each monitor operated at all times that the associated emission unit is operated? If no, explain:	<input type="checkbox"/> Yes <input type="checkbox"/> No																					
12) Describe any tests which have been performed in the past to quantify emissions. Include the date of the test, methods and procedures used, testing company, operating conditions existing during the test, and a summary of results. If additional space is needed, attach and label as exhibit _____.																						
<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 15%; text-align: left;">Test Date</th> <th style="width: 35%; text-align: left;">Test Method</th> <th style="width: 25%; text-align: left;">Firm</th> <th style="width: 25%; text-align: left;">Operating Conditions</th> </tr> <tr> <td style="border: 1px solid black; text-align: center;">/ /</td> <td style="border-bottom: 1px solid black;"></td> <td style="border-bottom: 1px solid black;"></td> <td style="border-bottom: 1px solid black;"></td> </tr> </table>	Test Date	Test Method	Firm	Operating Conditions	/ /				Summary of results: _____													
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Test Date	Test Method	Firm	Operating Conditions																			
/ /																						
13) Describe all reporting requirements and provide the title and frequency of report submittals:																						
<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 40%; text-align: left;">Reporting Requirements</th> <th style="width: 30%; text-align: left;">Title of Report</th> <th style="width: 30%; text-align: left;">Frequency</th> </tr> <tr><td style="border-bottom: 1px solid black;"></td><td style="border-bottom: 1px solid black;"></td><td style="border-bottom: 1px solid black;"></td></tr> <tr><td style="border-bottom: 1px solid black;"></td><td style="border-bottom: 1px solid black;"></td><td style="border-bottom: 1px solid black;"></td></tr> <tr><td style="border-bottom: 1px solid black;"></td><td style="border-bottom: 1px solid black;"></td><td style="border-bottom: 1px solid black;"></td></tr> <tr><td style="border-bottom: 1px solid black;"></td><td style="border-bottom: 1px solid black;"></td><td style="border-bottom: 1px solid black;"></td></tr> <tr><td style="border-bottom: 1px solid black;"></td><td style="border-bottom: 1px solid black;"></td><td style="border-bottom: 1px solid black;"></td></tr> <tr><td style="border-bottom: 1px solid black;"></td><td style="border-bottom: 1px solid black;"></td><td style="border-bottom: 1px solid black;"></td></tr> </table>	Reporting Requirements	Title of Report	Frequency																			
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**This Type II FEDOOP Permit Application
does not have a
Form 9440-L Compliance Status,
Form 9440-M Compliance Schedule
or
Form 9440-N Certified Progress Report**

INSTRUCTIONS FOR FORM 9440-O COMPLIANCE CERTIFICATION

PURPOSE

The application for a federally enforceable District-origin operating permit must contain a compliance certification signed by a responsible official. This form must be used for this compliance certification. It must be submitted with the original permit application as well as each annual report. The annual report will be due each year by April 15.

Note: Items which are self explanatory are not addressed.

Source Information: This information should be identical to the information stated in Form 9440-A.

- 1) **Source Name:** The company name, or specific plant name if different from the company name, must be provided.
- 2) **Source Street Address:** This must be the actual street address of the source. P.O. boxes are not acceptable.
- 5) **Permit No.:** This is the permit number assigned to the application for the permit for the source, by the District.
- 6) **Reporting Period:** If this form is being submitted as part of an annual report, the reporting period must be provided.

IDENTIFICATION OF EMISSION UNITS

All emission units at this source must be provided, as well as the compliance status, the applicable regulation, and methods of compliance.

- 7a) All emission units that are in compliance at all times with all applicable requirements must be provided in this space. An example would be:

<u>Emission Unit No.</u>	<u>Emission Point No.</u>	<u>Applicable Regulation</u>	<u>Compliance Method</u>
U3	E1	7.78	Stack test of particulate emission performed. Stack test for CO emissions performed.

- 7b) All emission units that are not in continuous compliance with all applicable requirements since the last reporting period must be provided in this space along with the requirement(s) that the unit is out of compliance with and the reason(s) for noncompliance. An example would be:

<u>Emission Unit No.</u>	<u>Reason(s) for Noncompliance</u>
U4	Nitrogen content of oil was not recorded during the past year as required by 40 CFR 60.49b(e). This was a mistake by the operator of the unit.

COMPLIANCE INFORMATION

For each emission unit at the source, regardless of compliance status, the methods used to determine compliance must be provided.

- 8a) An example of a testing method used to demonstrate compliance would be:
Particulate Matter Stack Test Method U.S. EPA Method 5 – Incinerator U3.

COMPLIANCE CERTIFICATION

(Continued)

- 8b) An example of a monitoring procedure used to demonstrate compliance would be:
Continuous Opacity Monitor - U4, Boiler #4.
- 8c) An example of recordkeeping used to demonstrate compliance would be:
Nitrogen content of oil - U4, Boiler #4.
- 8d) An example of reporting used to demonstrate compliance would be:
Annual report of all specified air contaminants, all emission units at source.

SIGNATURE BLOCK:

- 9) The application must be signed by a responsible official of the source and dated. In general, a responsible official is as follows:

For a corporation:

- Corporate officer
- Other person in charge of a principal business function
- Duly authorized representative responsible for overall operation of a source (plant manager) if either:
 - 250 persons employed or \$25 million in sales or expenditures
 - Delegation of authority approved in advance

For a partnership: A general partner.

For a sole proprietorship: The proprietor

For a government agency:

- Principal executive officer
- Ranking elected official

COMPLIANCE CERTIFICATION	FOR DISTRICT USE ONLY
	EIS NO:
	PERMIT NO:
	DATE RECEIVED:

SOURCE INFORMATION	
1) Source Name:	
2) Source Street Address:	
3) City:	4) Date Form Prepared:
5) FEDOOP Permit No. (If known):	
6) Is this the first submittal of this form? <input type="checkbox"/> Yes <input type="checkbox"/> No If no, what is the reporting period? _____ / _____ / _____ to _____ / _____ / _____	

[illegible]

EMISSION UNIT NO.	REASON(S) FOR NONCOMPLIANCE

COMPLIANCE CERTIFICATION
FORM 9440-O
(Continued)

COMPLIANCE INFORMATION
8) Summary of Methods Used to Determine Compliance:
A) Description of testing methods used to demonstrate compliance:
B) Description of monitoring procedures used to demonstrate compliance, including any enhanced monitoring requirements of the Act:
C) Description of recordkeeping used to demonstrate compliance:
D) Description of reporting used to demonstrate compliance:

SIGNATURE BLOCK FOR RESPONSIBLE OFFICIAL	
11) Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete.	
BY: _____	
Authorized Signature	_____
	Date
_____	_____
Typed or Printed Name of Signatory	Title of Signatory

SECTION 112(R) RISK MANAGEMENT PLAN FORM 9440-P

Under Section 112(r) of the Clean Air Act Amendments of 1990, any source that manufactures, processes, uses, stores, or otherwise handles regulated substances listed in 40 CFR 68 Subpart C in quantities that exceed a specified threshold to develop and implement a Risk Management Plan (RMP) pursuant to 40 CFR 68 Subpart B. The following questions must be answered and made part of your permit application submittal to the District.

Are you required to register a RMP pursuant to 40 CFR 68 Subpart B?

☐ YES ☐ NO

If you are required to submit a RMP, have you submitted it to the implementing agency?

☐ YES ☐ NO

If so, indicate the submittal date below.

/ /

If not, please provide the anticipated submittal date and a brief explanation as to why the submittal has not been made.

Anticipated Submittal Date:

/ /

Has the RMP submittal been reviewed?

☐ YES ☐ NO

Were any changes suggested?

☐ YES ☐ NO

Have the suggested changes (if any) been made to the RMP?

☐ YES ☐ NO

If the answer is no, please provide a brief summary of what was identified as requiring changes.

**This Type II FEDOOP Permit Application
does not have a
Form 9440-Q Emission Reduction Credit
Form 9440-R1 - Form 9440-R5 Episode Plans**

